

(FILE 'HOME' ENTERED AT 10:27:50 ON 12 JUN 2003)

FILE 'MEDLINE, SCISEARCH, BIOSIS, CAPLUS' ENTERED AT 10:28:04 ON 12 JUN 2003

L1 595 S LIBRAR? (10A) (MIMOTOPE# OR MIMITIC# OR PEPTIDOMIMETIC#)
L2 136 S L1 AND RANDOM
L3 18 S L2 AND SUPPORT
L4 17 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5 0 S L3 AND DECONVOLUT?
L6 0 S L3 AND ITERATIVE
L7 769 S ITERATIVE AND DECONVOLUT?
L8 3 S L7 AND L1

FILE 'STNGUIDE' ENTERED AT 10:41:17 ON 12 JUN 2003

FILE 'BIOSIS' ENTERED AT 10:44:48 ON 12 JUN 2003

FILE 'STNGUIDE' ENTERED AT 10:44:49 ON 12 JUN 2003

FILE 'MEDLINE, SCISEARCH, BIOSIS, CAPLUS' ENTERED AT 10:46:05 ON 12 JUN 2003

L9 12 S L1 AND (POSITIONAL (5A) SCANNING)
L10 0 S L9 AND RANDOM
L11 360 S RANDOM LIBRAR?
L12 4645 S RANDOM (5A) LIBRAR?
L13 0 S L12 AND L9
E SLOOTSTRA J W/AU
L14 65 S E4-E6
L15 18 S L14 AND LIBRAR?
L16 0 S L14 AND MIMETIC#
L17 11 DUPLICATE REMOVE L15 (7 DUPLICATES REMOVED)

=> d 18 1-3

L8 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2000:271671 BIOSIS
DN PREV200000271671
TI New opioid peptides, **peptidomimetics**, and heterocyclic compounds
from combinatorial **libraries**.
AU Dooley, C. T.; Houghten, R. A. (1)
CS (1) Torrey Pines Institute for Molecular Studies, 3550 General Atomics
Court, San Diego, CA, 92121 USA
SO Biopolymers, (April 24, 1999) Vol. 51, No. 6, pp. 379-390. print..
ISSN: 0006-3525.
DT General Review
LA English
SL English

L8 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1999:160886 BIOSIS
DN PREV199900160886
TI Techniques for mixture synthesis.
AU Kiely, John S. (1)
CS (1) Houghten Pharmaceuticals Inc., 3550 General Atomics Court, San Diego,
CA 92121 USA
SO Moos, W. H. [Editor]; Pavia, M. R. [Editor]; Kay, B. K. [Editor];
Ellington, A. D. [Editor]. (1997) pp. 6-18. Annual reports in
combinatorial chemistry and molecular diversity, Vol. 1.
Publisher: ESCOM Science Publishers B.V. PO Box 214, 2300 AE Leiden, The
Netherlands.
ISBN: 90-72199-23-5.
DT Book
LA English

L8 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1998:144585 BIOSIS
DN PREV199800144585
TI Peralkylation: "Libraries from libraries": Chemical transformation of
synthetic combinatorial libraries.
AU Ostresh, John M.; Doerner, Barbara; Houghten, Richard A.
CS Torrey Pines Inst. Molecular Studies, San Diego, CA USA
SO Cabilly, S. [Editor]. Methods in Molecular Biology, (1998) Vol. 87, pp.
41-49. Methods in Molecular Biology; Combinatorial peptide library
protocols.
Publisher: Humana Press Inc. Suite 808, 999 Riverview Drive, Totowa, New
Jersey 07512, USA.
ISSN: 0097-0816. ISBN: 0-89603-392-9.
DT Book
LA English

L8 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 2000:271671 BIOSIS
 DN PREV200000271671
 TI New opioid peptides, **peptidomimetics**, and heterocyclic compounds from combinatorial **libraries**.
 AU Dooley, C. T.; Houghten, R. A. (1)
 CS (1) Torrey Pines Institute for Molecular Studies, 3550 General Atomics Court, San Diego, CA, 92121 USA
 SO Biopolymers, (April 24, 1999) Vol. 51, No. 6, pp. 379-390. print.. ISSN: 0006-3525.
 DT General Review
 LA English
 SL English
 AB Here we review the use of combinatorial libraries in opioid receptor assays. Following a brief description of the history of the combinatorial field, methods for the generation of synthetic libraries and the **deconvolution** of mixture-based libraries are presented. Case studies involving opioid assays used to demonstrate the viability of combinatorial libraries are described. The identification of new opioid peptides from combinatorial libraries is reviewed. The peptides found are composed of L-amino acids, D-amino acids, or L-, D-, and unnatural amino acids, and range from tetrapeptides to decapeptides. Likewise, new opioid compounds identified from **peptidomimetic libraries**, such as peptoids and alkylated dipeptides, and those identified from acyclic (e.g., polyamine, urea) and heterocyclic (e.g., bicyclic guanidine) libraries, are reviewed.
 CC Biochemical Studies - General *10060
 Genetics and Cytogenetics - General *03502
 Nervous System - General; Methods *20501
 Biochemical Methods - General *10050
 IT Major Concepts
 Biochemistry and Molecular Biophysics; Methods and Techniques
 IT Chemicals & Biochemicals
 D-amino acids; L-amino acids; alkylated dipeptides; bicyclic guanidine; nociceptin; opioid heterocyclic compounds; opioid peptides; opioid peptidomimetics; orphanin FQ; peptoids; polyamine; urea
 IT Methods & Equipment
 combinatorial library synthesis: Synthesis/Modification Techniques, synthetic method; **iterative deconvolution**:
 Bioassays/Physiological Analysis, analytical method; opioid receptor assays: Bioassays/Physiological Analysis, analytical method; positional scanning: Bioassays/Physiological Analysis, analytical method
 IT Miscellaneous Descriptors
 combinatorial libraries
 RN 170713-75-4 (NOCICEPTIN)
 170713-75-4 (ORPHANIN FQ)
 57-13-6 (UREA)

L8 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 1999:160886 BIOSIS
 DN PREV199900160886
 TI Techniques for mixture synthesis.
 AU Kiely, John S. (1)
 CS (1) Houghten Pharmaceuticals Inc., 3550 General Atomics Court, San Diego, CA 92121 USA
 SO Moos, W. H. [Editor]; Pavia, M. R. [Editor]; Kay, B. K. [Editor]; Ellington, A. D. [Editor]. (1997) pp. 6-18. Annual reports in combinatorial chemistry and molecular diversity, Vol. 1. Publisher: ESCOM Science Publishers B.V. PO Box 214, 2300 AE Leiden, The Netherlands.

ISBN: 90-72199-23-5.

DT Book
LA English
CC Biochemical Methods - General *10050
Biochemical Studies - General *10060
Pharmacology - General *22002
IT Major Concepts
Methods and Techniques; Pharmaceuticals (Pharmacology)
IT Chemicals & Biochemicals
chemical library: diversity; peptide library; **peptidomimetic library**; receptor library
IT Methods & Equipment
iterative deconvolution: synthetic method; mixture
synthesis: synthetic method
IT Miscellaneous Descriptors
mixture-based combinatorial library: preparation; Book Chapter

L8 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1998:144585 BIOSIS
DN PREV199800144585
TI Peralkylation: "Libraries from libraries": Chemical transformation of
synthetic combinatorial libraries.
AU Ostresh, John M.; Doerner, Barbara; Houghten, Richard A.
CS Torrey Pines Inst. Molecular Studies, San Diego, CA USA
SO Cabilly, S. [Editor]. Methods in Molecular Biology, (1998) Vol. 87, pp.
41-49. Methods in Molecular Biology; Combinatorial peptide library
protocols.
Publisher: Humana Press Inc. Suite 808, 999 Riverview Drive, Totowa, New
Jersey 07512, USA.
ISSN: 0097-0816. ISBN: 0-89603-392-9.

DT Book
LA English
CC Biochemical Methods - Proteins, Peptides and Amino Acids *10054
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Biophysics - Molecular Properties and Macromolecules *10506
IT Major Concepts
Biochemistry and Molecular Biophysics; Methods and Techniques
IT Chemicals & Biochemicals
peptide: analysis
IT Methods & Equipment
iterative deconvolution method: analytical method;
positional scanning **deconvolution** method: analytical method
IT Miscellaneous Descriptors
peralkylation-**peptidomimetic** positional scanning
library: chemical transformation; synthetic combinatorial
library: chemical transformation; Book Chapter

=>

L9 ANSWER 1 OF 12 SCISEARCH COPYRIGHT 2003 THOMSON ISI
 AN 2000:492336 SCISEARCH
 GA The Genuine Article (R) Number: 327VJ
 TI Drug discovery and vaccine development using mixture-based synthetic combinatorial libraries
 AU Houghten R A (Reprint); Wilson D B; Pinilla C
 CS TORREY PINES INST MOL STUDIES, 3550 GEN ATOM COURT, SAN DIEGO, CA 92121 (Reprint)
 CYA USA
 SO DRUG DISCOVERY TODAY, (JUL 2000) Vol. 5, No. 7, pp. 276-285.
 Publisher: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND.
 ISSN: 1359-6446.
 DT General Review; Journal
 FS LIFE
 LA English
 REC Reference Count: 57
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 2 OF 12 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 2001:253930 BIOSIS
 DN PREV200100253930
 TI Selectively N-alkylated **peptidomimetic** combinatorial **libraries** and compounds therein.
 AU Dorner, Barbar (1); Ostresh, John M.; Dooley, Colette T.; Houghten, Richard A.; Eichler, Jutta
 CS (1) Basel Switzerland
 ASSIGNEE: Trega Biosciences, Inc.
 PI US 6143932 November 07, 2000
 SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 7, 2000) Vol. 1240, No. 1, pp. No Pagination. e-file.
 ISSN: 0098-1133.
 DT Patent
 LA English

L9 ANSWER 3 OF 12 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 2001:209934 BIOSIS
 DN PREV200100209934
 TI Selectively N-alkylated **peptidomimetic** combinatorial **libraries** and compounds therein.
 AU Dorner, Barbar (1); Ostresh, John M.; Dooley, Colette T.; Houghten, Richard A.; Eichler, Jutta
 CS (1) Basel Switzerland
 ASSIGNEE: Trega Biosciences, Inc., San Diego, CA, USA
 PI US 6121489 September 19, 2000
 SO Official Gazette of the United States Patent and Trademark Office Patents, (Sep. 19, 2000) Vol. 1238, No. 3, pp. No Pagination. e-file.
 ISSN: 0098-1133.
 DT Patent
 LA English

L9 ANSWER 4 OF 12 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 2000:271671 BIOSIS
 DN PREV2000000271671
 TI New opioid peptides, **peptidomimetics**, and heterocyclic compounds from combinatorial **libraries**.
 AU Dooley, C. T.; Houghten, R. A. (1)
 CS (1) Torrey Pines Institute for Molecular Studies, 3550 General Atomics Court, San Diego, CA, 92121 USA
 SO Biopolymers, (April 24, 1999) Vol. 51, No. 6, pp. 379-390. print..
 ISSN: 0006-3525.

DT General Review
LA English
SL English

L9 ANSWER 5 OF 12 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1998:144585 BIOSIS
DN PREV199800144585
TI Peralkylation: "Libraries from libraries": Chemical transformation of
synthetic combinatorial libraries.
AU Ostresh, John M.; Doerner, Barbara; Houghten, Richard A.
CS Torrey Pines Inst. Molecular Studies, San Diego, CA USA
SO Cabilly, S. [Editor]. Methods in Molecular Biology, (1998) Vol. 87, pp.
41-49. Methods in Molecular Biology; Combinatorial peptide library
protocols.
Publisher: Humana Press Inc. Suite 808, 999 Riverview Drive, Totowa, New
Jersey 07512, USA.
ISSN: 0097-0816. ISBN: 0-89603-392-9.
DT Book
LA English

L9 ANSWER 6 OF 12 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1996:301 BIOSIS
DN PREV199698572436
TI Peptide, **peptidomimetic**, and organic synthetic combinatorial
libraries.
AU Eichler, Jutta; Appel, Jon R.; Blondelle, Sylvie E.; Dooley, Colette T.;
Dorner, Barbara; Ostresh, John M.; Perez-Paya, Enrique; Pinilla,
Clemencia; Houghten, Richard A. (1)
CS (1) Torrey Pines Inst. Molecular Studies, 3550 General Atomics Court, San
Diego, CA 92121 USA
SO Medicinal Research Reviews, (1995) Vol. 15, No. 6, pp. 481-496.
ISSN: 0198-6325.
DT General Review
LA English

L9 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 2001:196907 CAPLUS
TI Mixtures in combinatorial libraries: The balance between completeness and
efficiency
AU Houghten, Richard A.
CS Torrey Pines Institute for Molecular Studies and Mixture Sciences, Inc,
San Diego, CA, 92121, USA
SO Abstracts of Papers - American Chemical Society (2001), 221st, AGFD-088
CODEN: ACSRAL; ISSN: 0065-7727
PB American Chemical Society
DT Journal; Meeting Abstract
LA English

L9 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 2000:436455 CAPLUS
DN 134:80357
TI Drug discovery and vaccine development using mixture-based synthetic
combinatorial libraries
AU Houghten, R. A.; Wilson, D. B.; Pinilla, C.
CS Mixture Sciences, Torrey Pines Institute for Molecular Studies, San Diego,
CA, 92121, USA
SO Drug Discovery Today (2000), 5(7), 276-285
CODEN: DDTOPS; ISSN: 1359-6446
PB Elsevier Science Ltd.
DT Journal; General Review
LA English

RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 2000:328158 CAPLUS
TI Mixtures in combinatorial libraries: The balance between completeness and efficiency.
AU Houghten, Richard A.
CS Torrey Pines Institute for Molecular Studies and Mixture Sciences, Inc, San Diego, CA, 92121, USA
SO Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March 26-30, 2000 (2000), CHED-030 Publisher: American Chemical Society, Washington, D. C.
CODEN: 69CLAC
DT Conference; Meeting Abstract
LA English

L9 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 1999:810196 CAPLUS
DN 132:121258
TI Immunogenicity. I. Use of peptide libraries to identify epitopes that activate clonotypic CD4+ T cells and induce T cell responses to native peptide ligands
AU Wilson, Darcy B.; Pinilla, Clemencia; Wilson, Dianne H.; Schroder, Kim; Boggiano, Cesar; Judkowski, Valeria; Kaye, Jonathan; Hemmer, Bernhard; Martin, Roland; Houghten, Richard A.
CS Torrey Pines Institute for Molecular Studies, San Diego, CA, 92121, USA
SO Journal of Immunology (1999), 163(12), 6424-6434
CODEN: JOIMA3; ISSN: 0022-1767
PB American Association of Immunologists
DT Journal
LA English

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 1997:618263 CAPLUS
DN 127:263064
TI Preparation of selectively N-alkylated **peptidomimetic** combinatorial **libraries** and compounds as analgesics and antidiabetics
IN Dorner, Barbara; Ostresh, John M.; Dooley, Collette T.; Eichler, Jutta; Houghten, Richard A.
PA Torrey Pines Institute for Molecular Studies, USA
SO PCT Int. Appl., 153 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9733174	A1	19970912	WO 1997-IB349	19970305
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2248078	AA	19970912	CA 1997-2248078	19970305
	AU 9720405	A1	19970922	AU 1997-20405	19970305
	AU 720632	B2	20000608		
	EP 890101	A1	19990113	EP 1997-908448	19970305
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001502293	T2	20010220	JP 1997-531626	19970305
PRAI	US 1996-611390	A	19960305		
	WO 1997-IB349	W	19970305		

L9 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2003 ACS
AN 1997:162646 CAPLUS
TI Heterocyclic **positional scanning** combinatorial
libraries.
AU Houghten, R. A.
CS Houghten Pharmaceuticals, Inc., San Diego, CA, 92121, USA
SO Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17
(1997), ORGN-384 Publisher: American Chemical Society, Washington, D. C.
CODEN: 64AOAA
DT Conference; Meeting Abstract
LA English

L17 ANSWER 8 OF 11 MEDLINE DUPLICATE 2
 AN 1998249460 MEDLINE
 DN 98249460 PubMed ID: 9587871
 TI Screening of a small set of random peptides: a new strategy to identify synthetic peptides that mimic epitopes.
 AU Slootstra J W; Puijk W C; Ligtoet G J; Kuperus D; Schaaper W M; Meloen R H
 CS Department of Molecular Recognition, Institute for Animal Science and Health (ID-DLO), Lelystad, The Netherlands.
 SO JOURNAL OF MOLECULAR RECOGNITION, (1997 Sep-Oct) 10 (5) 217-24.
 Journal code: 9004580. ISSN: 0952-3499.
 CY ENGLAND: United Kingdom
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 199807
 ED Entered STN: 19980713
 Last Updated on STN: 19980713
 Entered Medline: 19980701
 AB Small diversity **libraries**, composed of 4550 synthetic dodecapeptides and 8000 synthetic tripeptides, have been used to identify sequences homologous to small linear and non-linear parts of epitopes. Here we report that synthetic peptides identified through alignment of dodecapeptides and tripeptides derived from these small **libraries** have, in direct ELISA and/or competitive ELISA, activities similar to that of peptides covering the native epitope and similar to that of peptides derived from large expression **libraries** composed of 10(6)-10(7) random peptides. This result was obtained with the monoclonal antibodies 6A.A6 and M2. Mab 6A.A6 binds the transmissible gastroenteritis virus (TGEV) and mAb M2 binds the FLAG-peptide, an affinity tag. It was also found that the antibody binding activity of peptides, derived from small or large **libraries**, can strongly depend on the way in which the peptide is presented to the antibody, i.e. high antibody titers were obtained when these peptides were synthesized on pins or coated onto microtiter plates, whereas low IC50s were obtained with these peptides in solution. We postulate that small peptide **libraries** may be a powerful tool to quickly identify new peptides that can be used as sensitive markers for mAbs of interest.
 CT Check Tags: Animal
 Antibodies, Monoclonal: IM, immunology
 Antibodies, Viral: IM, immunology
 Antigens, Viral: IM, immunology
 Enzyme-Linked Immunosorbent Assay
 *Epitopes: AN, analysis
 Epitopes: IM, immunology
 *Molecular Mimicry
 *Peptide Fragments: AN, analysis
 Peptide Fragments: CS, chemical synthesis
 *Peptide Fragments: IM, immunology
 Peptides: IM, immunology
 Transmissible gastroenteritis virus: IM, immunology
 Viral Proteins: IM, immunology
 RN 98849-88-8 (FLAG peptide)
 CN 0 (Antibodies, Monoclonal); 0 (Antibodies, Viral); 0 (Antigens, Viral); 0 (Epitopes); 0 (Peptide Fragments); 0 (Peptides); 0 (Viral Proteins); 0 (spike protein S)
 L17 ANSWER 9 OF 11 SCISEARCH COPYRIGHT 2003 THOMSON ISI
 AN 97:386777 SCISEARCH
 GA The Genuine Article (R) Number: WY866
 TI Identification of new tag sequences with differential and selective

recognition properties for the anti-FLAG monoclonal antibodies M1, M2 and M5

AU **Slootstra J W (Reprint)**; Kuperus D; Pluckthun A; Meloen R H
CS DLO, ID, INST ANIM SCI & HLTH, DEPT MOL RECOGNIT, POB 65, NL-8200 AB
LELYSTAD, NETHERLANDS (Reprint); UNIV ZURICH, INST BIOCHEM, CH-8057
ZURICH, SWITZERLAND
CYA NETHERLANDS; SWITZERLAND
SO MOLECULAR DIVERSITY, (MAR 1997) Vol. 2, No. 3, pp. 156-164.
Publisher: ESCOM SCI PUBL BV, PO BOX 214, 2300 AE LEIDEN, NETHERLANDS.
ISSN: 1381-1991.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 21
AB The FLAG peptides DYKDDDDK and MDYKDDDDK are widely used affinity tags. Here we describe new variants of the FLAG peptides which, in direct ELISA, showed selective and differential binding to the commercially available anti-FLAG monoclonal antibodies M1, M2 and M5. Variants of the FLAG peptides were synthesized on polymer-grafted plastic pins, and in an ELISA incubated with mAbs M1, M2 and M5. Among the newly identified tag sequences are those that bind only one of the anti-FLAG mAbs and those that bind only two or all three of the anti-FLAG mAbs. Examples of new tag sequences are MDFKDDDDK (which binds mAb M5 and does not bind mAbs Evil and M2) and MDYKAFDNL (which binds mAb M2 and does not bind mAbs M1 and M5). The sensitivity in direct ELISA of some variants was increased, e.g. using mAb M2 it was found that replacing DDDDK in MDYKDDDDK by AFDNL increased the sensitivity in ELISA at least 10-fold. The activity of this peptide was studied in more detail. In different direct ELISAs, in which MDYKAFDNL was synthesized on polyethylene pins, coated onto polystyrene microtiter plates or onto nitrocellulose paper, the activity of this peptide was similar, i.e. increased at least 10-fold over that of MDYKDDDDK. Remarkably, in competitive ELISA the binding activity of soluble MDYKAFDNL, was decreased 10-fold over those of soluble MDYKDDDDK or DYKDDDDK. The results seem to suggest that, in solution, the conformation of MDYKAFDNL is more 'unstructured' compared to its conformation when coated or linked to a carrier. We postulate that the newly described tag sequences may be used as affinity tags to separately detect, quantify and purify multiple co-expressed proteins and/or subunits.
CC CHEMISTRY, APPLIED; CHEMISTRY, MEDICINAL
ST Author Keywords: affinity tag; FLAG peptide; differential recognition
STP KeyWords Plus (R): N-TERMINAL METHIONINE; PHAGE DISPLAY **LIBRARY**;
2-STAGE SELECTION; ESCHERICHIA-COLI; AMINO-ACID; PEPTIDE; PURIFICATION;
PROTEINS; CONFORMATION; RESIDUES
RF 95-1812 001; SYNTHETIC COMBINATORIAL LIBRARIES; CYCLIC PEPTIDE MIXTURES;
DRUG DISCOVERY; PHAGE DISPLAY

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)
DALBOGE H	1990	266	1	FEBS LETT
DEBLAS A L	1983	133	214	ANAL BIOCHEM
GEYSEN H M	1984	81	3998	P NATL ACAD SCI USA
HIREL P H	1989	86	8247	P NATL ACAD SCI USA
HOPP T P	1988	6	1204	BIOTECHNOLOGY
HUANG S	1987	26	8242	BIOCHEMISTRY-US
JONES C	1995	707	3	J CHROMATOGR A
KNAPPIK A	1994	17	754	BIOTECHNIQUES
LANG E	1994	170	103	J IMMUNOL METHODS
LANGEVELD J P M	1994	68	4506	J VIROL
LI K W	1989	472	445	J CHROMATOGR
LIGHT A	1989	14	110	TRENDS BIOCHEM SCI

MATTIOLI S	1995	69	5294	J VIROL
MICELI R M	1994	167	279	J IMMUNOL METHODS
PINILLA C	1995	1	21	MOL DIVERSITY
PRICKETT K S	1989	7	580	BIOTECHNIQUES
SASSENFELD H M	1990	8	88	TRENDS BIOTECHNOL
SCHAFER K	1995	207	708	BIOCHEM BIOPH RES CO
STOCKMAN B J	1995	45	11	INT J PEPT PROT RES
TAO Y	1994	302	517	BIOCHEM J
TATE C G	1994	269	26303	J BIOL CHEM

L17 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1996:695888 CAPLUS

DN 126:6016

TI Mapping of antigenic determinants with large random expression
libraries and small random synthetic peptide **libraries**:
A comparative study

AU **Slootstra, J. W.**; Puijk, W. C.; Ligtoet, G. J.; Langeveld, J.
P. M.; Schaaper, W. M. M.; Meloen, R. H.

CS Department Molecular Recognition, Institute Animal Science and Health
(ID-DLO), Lelystad, 8200 AB, Neth.

SO Peptides: Chemistry, Structure and Biology, Proceedings of the American
Peptide Symposium, 14th, Columbus, Ohio, June 18-23, 1995 (1996), Meeting
Date 1995, 301-302. Editor(s): Kaumaya, Pravin T. P.; Hodges, Robert S.
Publisher: Mayflower Scientific, Kingswinford, UK.
CODEN: 63NTAF

DT Conference

LA English

CC 15-2 (Immunochemistry)

AB In recent years, many epitopes have been successfully mapped using
immunoscreening of large random peptide **libraries** composed of
millions of different sequences. Here, this approach was compared with
immunoscreening of small synthetic random peptide **libraries**
contg. 4550 random dodecapeptides and 8000 tripeptides. The peptide
libraries were used to identify consensus sequences for antibody
reactivity and to design epitope-mimicking peptides.

ST epitope mapping antigen peptide **library**

IT Peptides, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP
(Properties); BIOL (Biological study); PROC (Process)
(dodeca-; mapping of antigenic determinants with large random
expression **libraries** and small random synthetic peptide
libraries)

IT Tripeptides

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP
(Properties); BIOL (Biological study); PROC (Process)
(mapping of antigenic determinants with large random expression
libraries and small random synthetic peptide **libraries**
)

IT Antibodies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(monoclonal; mapping of antigenic determinants with large random
expression **libraries** and small random synthetic peptide
libraries)

L17 ANSWER 11 OF 11 MEDLINE

DUPLICATE 3

AN 97380408 MEDLINE

DN 97380408 PubMed ID: 9237197

TI Structural aspects of antibody-antigen interaction revealed through small
random peptide **libraries**.

AU **Slootstra J W**; Puijk W C; Ligtoet G J; Langeveld J P; Meloen R
H

CS Department of Molecular Recognition, Institute for Animal Science and Health (ID-DLO), Lelystad, The Netherlands.

SO MOLECULAR DIVERSITY, (1996 Feb) 1 (2) 87-96.
Journal code: 9516534. ISSN: 1381-1991.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199709

ED Entered STN: 19971008
Last Updated on STN: 20020730
Entered Medline: 19970923

AB Two small random peptide **libraries**, one composed of 4550 dodecapeptides and one of 8000 tripeptides, were synthesized in newly developed credit-card format miniPEPSCAN cards (miniPEPSCAN **libraries**). Each peptide was synthesized in a discrete well (455 peptides/card). The two miniPEPSCAN **libraries** were screened with three different monoclonal antibodies (Mabs). Two other random peptide **libraries**, expressed on the wall of bacteria (recombinant **libraries**) and composed of 10(7) hexa- and octapeptides, were screened with the same three Mabs. The aim of this study was to compare the amino acid sequence of peptides selected from small and large pools of random peptides and, in this way, investigate the potential of small random peptide **libraries**. The screening of the two miniPEPSCAN **libraries** resulted in the identification of a surprisingly large number of antibody-binding peptides, while the screening of the large recombinant **libraries**, using the same Mabs, resulted in the identification of only a small number of peptides. The large number of peptides derived from the small random peptide **libraries** allowed the determination of consensus sequences. These consensus sequences could be related to small linear and nonlinear parts of the respective epitopes. The small number of peptides derived from the large random peptide **libraries** could only be related to linear epitopes that were previously mapped using small **libraries** of overlapping peptides covering the antigenic protein. Thus, with respect to the cost and speed of identifying peptides that resemble linear and nonlinear parts of epitopes, small diversity **libraries** based on synthetic peptides appear to be superior to large diversity **libraries** based on expression systems.

CT Check Tags: Animal; In Vitro
Amino Acid Sequence
Antibodies, Monoclonal
*Antigen-Antibody Reactions
Consensus Sequence
Epitopes: CH, chemistry
Molecular Structure
Oligopeptides: CH, chemistry
Oligopeptides: IM, immunology
Oligopeptides: ME, metabolism
*Peptide Library
Plasmodium falciparum: CH, chemistry
Plasmodium falciparum: GE, genetics
Plasmodium falciparum: IM, immunology
Protein Binding
Protozoan Proteins: CH, chemistry
Protozoan Proteins: GE, genetics
Protozoan Proteins: IM, immunology

CN 0 (Antibodies, Monoclonal); 0 (Epitopes); 0 (Oligopeptides); 0 (Peptide **Library**); 0 (Pfs25 protein, Plasmodium falciparum); 0 (Protozoan Proteins)

